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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,186	03/08/2000	Dannie C. Lau	PHAT-1002US0 BBM	1788

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EXAMINER

PENDLETON, BRIAN T

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/521,186

Applicant(s)

LAU ET AL.

Examiner

Brian T. Pendleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 15, 16, 18, 19, 27, 28, 32, 33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 13, 15, 16, 18, 19, 27, 28, 32, 33 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 13, 15, 16, 18, 19, 27, 28, 32, 33 and 35-37 is withdrawn in view of the newly discovered reference(s) to Miyashita (USPN 6320823) and Ogawa et al (USPN 6147938). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 35 and 37** are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita et al (6320823 B1).

Miyashita discloses an audio system involving audio data stored on both a hard disk drive as well as a disc changer.

Specifically regarding **Claim 35**, Miyashita teaches:

A method for playing music (col. 4, lines 35-40), comprising:

receiving and storing first user replaceable music data (either data received and stored on HDD 6 in the context of continuously storing new songs (col. 1, lines 18-26; col. 4, lines 29-35) or placement of CD-ROM in changer B, in context of stocked CD-ROMs(col. 1, lines 37-47; and col. 4, lines 62-67));

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receiving and storing first user replaceable interface program code (e.g., "old data file", either initially or previously stored in memory 10A, necessary for performing operation of disc changer (col. 5, lines 47-63));

communicating with a first disc changer based on said first user replaceable interface program code (disc changer B is operated in accordance with selection signal from changer controller (4) of controller (A), data file of memory (10A) necessary for performing operation of disc changer B, thus, signal input and response based on the stored data file; also, function of I/F (15) is one aspect of operation of changer B (col. 5, lines 9-17 and 47-54));

playing said music data (col. 5, lines 4-8 and 22-25);

receiving and storing second user replaceable interface program code after said step of communicating with a first disc changer ("new data file", col. 6, lines 5-9 and 24-44); and

communicating with a second disc changer (i.e., "new disc changer") based on said second user replaceable interface program code ("new data file")(col. 7, lines 4-12) .

Regarding Claim 37, please refer to the above rejection of Claim 35, noting that the "new data file" may also be associated with the same disc changer B that operated under the "old data file" (col. 5, lines 61-63; col. 6, lines 32-37 and 62-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 36** is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita as applied above, and in further view of Ronning (USPN 5870543).

As detailed above, Miyashita discloses an audio system involving audio data stored on both a hard disk drive as well as a disc changer. The software upon which the disc changer B operates, a function of which includes the transmission and reception (15) of data from a controller (4), is obtained from a hard disc drive (6) that stores the file after reception from a telephone connection (t)(col. 6, lines 5-9 and 32-37)

Miyashita does not specify:

- that the method of playing audio further includes the step of decrypting said second user replaceable interface program code.

However, the concept of data encryption is well known in the art of data security.

Ronning discloses system for preventing unauthorized copying of active software. Software programs are locked to prevent unauthorized users from copying or tampering with the program (col. 3, lines 19-36). The software may be decrypted in parts to enable the software to be used, but not otherwise copied by an unauthorized user (col. 8, lines 19-21 and 45-49). This form of encryption, and subsequent decryption reads on "decrypting said second user replaceable interface program code" (col. 9, lines 15-32).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to encrypt the data file of Miyashita, thereby requiring decryption for the actual use of

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the file, as is taught by Ronning. The motivation behind such a modification would have been that requiring such decryption would have prevented an unauthorized copy of the distributed information from being obtained without considerable time, effort, and processing capability. Such an authorization requirement would have enabled selective authorization of the use of the data file, based on selected conditions such as the payment of a usage fee.

4. **Claims 13, 15, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Berhan (USPN 6487145) in view of Miyashita.

Berhan discloses an automotive audio data collection and management system.

Specifically regarding **Claim 13**, Berhan teaches:

A vehicle sound system (col. 4, lines 28-53), comprising:

a port capable of being connected to a disc changer (142)(slot in unit 114 for holding removable CD changer (142), including necessary electrical connections(col. 4, lines 33-38));

one or more speaker outputs (col. 1, lines 32-34; col. 4, lines 31 and 44-46);

one or more processor readable storage devices capable of storing user replaceable interface program code and music data files (118, col. 5, lines 4-7 and 37-49, 'program code' in further view of Miyashita, applied below)

said one or more processor readable storage devices includes a removably connected hard disk drive (120 of 118) (col. 4, lines 38-41)

said hard disk drive (120) stores said music data files in a compressed format (e.g., MP3 format; col. 2, lines 63-64; col. 5, lines 30-44); and

one or more processors (124) in communication with said one or more processor readable storage devices (118) and said port (connection to 142) and said one or more speaker outputs (116, via 132) (col. 5, lines 10-24),

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at least one of said one or more processors (132) plays said music data files (col. 5, lines 22-24),

said at least one processor that plays said music data files accesses said music data files from said hard disk drive (col. 6, lines 26-29; col. 7, lines 2-18),

Regarding the interaction of the control unit (114), CD changer (142), and hard disc (118), Berhan teaches the use of associated interface circuits (122,130,144) and storage (126) of software instructions (col. 5, lines 10-16).

However, Berhan does not specify:

- at least one of said one or more processors engages in two-way communication with said disc changer based on said replaceable interface program code,
- said one or more processor readable storage devices include a memory device,
- said one or more processors perform a method comprising the steps of:
 - o determining whether new replaceable interface program code is to be loaded
 - o reading said new replaceable interface program code from said hard disk drive if said new replaceable interface code is to be loaded, and
 - o storing said new replaceable interface code on said memory device if said new replaceable interface code is to be loaded.

Miyashita discloses an audio system involving audio data stored on both a hard disk drive as well as a disc changer.

Specifically regarding Claim 13, Miyashita teaches:

- a port (SCSI) capable of being connected to a disc changer (142)(electrical connection between controller 4 and I/F 15; col. 4, line 15; col. 5, lines 9-13);

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one or more speaker outputs (col. 4, lines 35-40);

one or more processor readable storage devices capable of storing user replaceable interface program code (i.e., "data file" and music data files (6, col. 4, lines 29-31; col. 6, lines 5-9);

one or more processors (1,4,8,10) in communication with said one or more processor readable storage devices (6) and said port (connection to 15) and said one or more speaker outputs (E, via 8) (col. 5, lines 9-32),

at least one of said one or more processors (4 instructed by 1) engages in two-way communication (col. 5, lines 11-13 and 22-25) with said disc changer based on said replaceable interface program code (data file controls operation of disc changer B, operations of changer B include reception and output of signals via I/F 15, changer B operates in accordance with signal from controller 4 via I/F 15; col. 5, lines 9-17 and 47-60)

at least one of said one or more processors (8) plays said music data files (col. 4, lines 31-35),

said at least one processor (8) that plays said music data files accesses said music data files from said hard disk drive (6)(col. 4, lines 31-40),

said one or more processor readable storage devices include a memory device (10A)(col. 5, lines 49-60),

said one or more processors (10) perform a method comprising the steps of:

determining whether new replaceable interface program code is to be loaded (col. 6, lines 32-44),

reading said new replaceable interface program code from said hard disk drive if said new replaceable interface code is to be loaded (col. 6, lines 32-37), and

storing said new replaceable interface code on said memory device (10A) if said new replaceable interface code is to be loaded (col. 6, lines 35-37).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to both incorporate the data file based operation and data file update scheme of the disc changer of Miyashita in the disc changer of Berhan. The motivation behind the use of the data file based operation would have been the ability to incorporate new improvements or newly developed functions into the operation of the disc changer. Motivation behind the use of the hard disc drive to store data file updates would have been that updated files would have been receivable during periods in which access to the associated changer memory was not available. Motivation would have also been the repeated use of a new version of the data file for a new disc changer, without the need to re-obtain a copy of the new version of the data file.

Regarding **Claim 15**, Berhan further discloses:

a dock connected to a computer (inherent physical adapter for aligning and permitting valid electrical connection to computer; col. 4, lines 38-41)

said hard disk drive is capable of being removably connected to said dock (removable nature of drive cartridge (118); col. 4, lines 38-41),

said hard disk drive receives said compressed music data files from said dock (combination of removable disc (18) with automobile and personal computer, computer records in format, encoding formats include MP3 and CD3; col. 4, lines 20-25 and 54-58; col. 5, lines 25-36). It is further noted that Berhan teaches that music maybe downloaded from internet, internet connections being well known in the art for personal computer, and internet content being well known to be compressed for optimal transmission speed (col. 10, lines 15-23).

Regarding **Claim 16**, Miyashita particularly discloses:

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said user replaceable interface program code is stored on said hard disk drive (6)(col. 6, lines 5-9).

5. **Claims 18-19, 27-28, and 32-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Berhan in view of Miyashita as applied above, and in further view of Ogawa et al (USPN 6147938), hereafter referred to as "Ogawa".

As detailed above, Berhan discloses an automotive audio data collection and management system and Miyashita discloses an audio system involving audio data stored on both a hard disk drive as well as a disc changer.

The system of Behran is disclosed as being particularly a automotive audio system or a combination of an automotive audio system and another system such as a personal computer (col. 4, lines 20-25).

Behran teaches a user friendly control interface (110), through which commands are entered to an interface that routes this signals from the hard drive (118) or changer (142) to an output sound card (132)(col. 5, lines 10-24). This connection between the control interface (110), component interface (122), and sound card (132) reads on "an output communicated to said speakers".

However, Behran in view of Miyashita do not clearly specify:

- a radio tuner; and
- a switch,
- said switch having a first input receiving music from said disc changer,
- a second input receiving music from said radio tuner,
- a third input receiving music from based on said music data files,

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Ogawa discloses a control panel for a vehicle audio system that includes a radio, mini-disc player, and CD changer.

Specifically regarding **Claim 18**, Ogawa teaches:

a radio tuner (47)(col. 17, lines 34-36); and

a switch (11, in combination with 46)(col. 17, lines 14-36),

said switch having a first input (connection between 31 and 44) receiving music from said disc changer (30)(col. 17, lines 14-23),

a second input (connection between 46 and 47) receiving music from said radio tuner (47)(col. 17, lines 34-36)

a third input (connection between 21 and 45) receiving music from based on said music data files (storage media or the like, in view of above teachings of Berhan and Miyashita, col. 17, lines 24-33),

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to include a radio tuner in the system of Berhan in view of Miyashita, along with the control circuitry for selectively operating one of the audio sources in the combined automobile audio system, as is disclosed by Ogawa. Including a radio tuner in the system would have enabled a user to listen to a radio broadcast in an automobile environment, wherein radio broadcasts are well known in the art to provide current traffic and weather information as well as free, new music to a user. A switch for selecting between the operations of the audio sources would have been desirable for enabling a user to continuously and variably listen to a desired audio source, based on the input of a single component, such as the electrically connected switches (11) of Ogawa.

Regarding **Claim 19**, Okawa particularly discloses:

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a control panel (10), said control panel includes one or more buttons (eject, Figure 2) dedicated to control said disc changer (30)(col. 11, lines 32-40).

Regarding **Claim 27**, please refer above to the rejection of the similar limitations of Claims 13, 18, and 19.

Regarding **Claim 28**, please refer above to the rejection of the similar limitations of Claim 19.

Regarding **Claim 32**, please refer above to the rejection of the similar limitations of Claim 13.

Regarding **Claim 33**, Behran particularly teaches:

said music data includes files stored in MP3 format (col. 5, lines 31-37).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pleso (USPN 6009480) discloses a computer system that may be connected to a plurality of peripheral devices, wherein the drivers for the peripheral devices are stored on the peripheral devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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btp


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SUPERVISOR PATENT EXAMINER